K Streete (F.)

THE Description & Use OF THE PLANETARY SYSTEME,

531. L 13 6

Together with

Easie TABLES.

By which.

The Apparent Motions of the Heavens may be readily found for ever.

MVSEVM BRITANNICVM

LONDON

Printed by *J. Darby*, for *Robert Morden* at the Sign of the *Atlas* in *Cornhil*, and *William Berry* at the Sign of the *Globe* betwixt *York* House and the *New Exchange* in the *Strand*. 1674.

The Description and Use OF THE Planetary Systeme, &c.

THE outermost divided Circle, is of 1000 parts, of which every 10 parts are numbred above; The next Circle within it, is of Degrees and halves, of which every Signe is numbred below, with a line to every 10 and 5 Degrees: The beginning from which the said Parts and Degrees are numbred, is at the Cypher, denoting the place of the first Star of *Aries* in the *Copernican* Catalogue: Then among the said numbers of signes are placed the Nodes of the Planets, thus Characterized, ☊ the Northern, and ☋ the Southern Node: Next, by lines drawn from the Center are expressed the *Aphelions* of the Planets, distinguished by their Characters; *viz.* A♂, A♃, A☿, A♄, A☉, A♀; and by shorter lines opposite to them and next under the numbers of signes, the *Perihelions*, marked P♂, P♃, *&c.* Then the *Ellipsis* of each Planet is described; *Saturn*'s and *Jupiter*'s only once; but those of *Mars*, the *Earth*, *Venus* and *Mercury* twice, first in lesser forms without divisions, and secondly in greater divided into every five Degrees; the Transverse (or longest) Diameter of the divided *Ellipsis* of each Planet, being in proportion to that of the undivided, as 11 to 2: Every Planets Character is set at the intersection of his *Ellipsis* with with the line of his *Aphelion*, where for farther distinction, to the larger is added the figure 2. The Center of the first mentioned Circles, from which issueth two threads of several colours, representeth the fixed place of the *Sun*, the

Common *Focus* of the *Planetary Systeme*, the other *Focus* of each Planets *Ellipsis* is a point in the line of his *Aphelion*, for the lesser *Ellipsis* marked *f*, but for the greater *F*.

Then in some of the spaces, are placed near together on the one side ☽, the figures of the bodies of the Planets, with the mean distance of the *Moon* from the *Earth*, according to their true proportions, supposing the true diameter of the body of the *Sun* equal to that of the greatest Circle circumscribing all the numbers; And on the other side, the greatest visible magnitudes of the Planets at the *Earth*, with the greatest visible distances of the secondary Planets about ♄ and ♃ from their primary, taking the Diameter of the last mentioned greatest Circle, for the visible Diameter of the *Sun* in his mean distance.

The right line of 110 equal parts, meeting at the larger *Ellipsis* of ♂ with the line which passeth through ♃ and his *Satellites*, and also with that which pointeth out the place of the first Star of ♈, is for measuring the Distances and Latitudes of the Planets, of which more below.

Now for finding the true places of the Planets and fixt Stars at all times; In the Tables for this purpose, for several years of *Christ* current, as also for the intermediate preceding and succeeding years, to the given Month day and hour, you have the *Mean Anomaly* of each Planet, and the Præcession of the Vernal Equinox, with the Variation of ♂ and ☿, in 10000 parts of a Circle; And lastly the Heliocentrick Latitudes of the Planets, with the Reduction and greatest Curtation of ☿ in Degrees and Tenths: The Use of which Tables, together with the Planetary Systeme and the Sector fitted to it, will plainly appear by the following Examples.

In the year afore *Christ* 272, *January* the 17th. day, 15ʰ hours reduced unto *London*, the Planet *Mars* was observed in a close Conjunction with the Northern bright Star of the forehead of the *Scorpion*. *Ptol. Lib.* 10. *Cap.* 9. To which time, by the aforesaid Tables and Systeme, I would know the Præcession of the Vernal Equinox, with the Apparent places of the Sun and Mars.

The

The fixt Longitude of the said Northern bright Star, is from the first Star of *Aries*, by the Observation of *Tycho Brahe*, 6 Sig. 29 deg. 59. min. and his correct Latitude North 1 deg. 4 min.

The Middle Motions are thus gathered.

		Anom. ☉	*prac. aq.*	*Anom.* ♂
Anno Chri.	1	5678	144	7562
Sub.	300	9946	117	5030
Ante Chri.	300	5732	27	2532
Adde	20	9996	8	6335
	8	9999	3	2534
Janu: d.	17	465		247
Hor.	15	17		9
		6209	38	1657

Then opening the Sector to 6209 parts, that is 621 almost of the outermost parts of the Arch, I lay the Center thereof on the Focus of the Earth at F, and one leg of it directly in the line of her *Aphelion*, so that the other leg shall cut her true place in her larger Ellipsis; by which true place drawing forth one thread which I constantly use for the Earth, it cutteth in the Circle of Degrees, 3 Signes, 23 degrees and two tenths, the Heliocentrick Longitude of the Earth; where I leave the thread to remain by the weight of its Plummet, and to the said Longitude adding 6 Signes, it will be 9 Signes, 23 degrees and 2 tenths, the Geocentrick Longitude of the Sun from the first Star of *Aries*.

Next for the place of *Mars*, his Mean-Anomaly 1657, in the outermost Circle, answering to almost 2 Signes in that of degrees; In the Table of Variation I find 2 Signes under the Title Add: and right against 2 Signes, the variation of ♂ 3, which accordingly Added to 1657 parts, the sum is 1660, that is exactly 166 of the outermost arch, to which opening the Sector, I lay the Center of it on the Focus of *Mars* at F, and one leg directly in the line of his *Aphelion*;

so

ſo that the other leg ſhall cut his true place in his larger Ellipſis, by which drawing forth the other thread, it cutteth in the Circle of Degrees, 5 Signes, 22 Degrees, 2 tenths, the Heliocentrick Longitude of *Mars*; and there leaving this other thread and plummet, I again open the Sector, laying its Center on the true place of *Mars* in his larger Ellipſis, the one leg by the place of the Earth in her larger Ellipſis, and the other leg by the Center of the *Sun*; and ſo in the Arch of Degrees, I find the parallax of the Earth's Orbe 1 Signe, 7 Degrees, 7 tenths, which, becauſe *Mars* is found Oriental, added to his Heliocentrick Longitude aforefound 5 ſigns, 22 Degrees, 2 tenths; the ſum is 6 Signs, 29 Degrees, 9 tenths, the Geocentrick Longitude of *Mars* from the firſt Star of *Aries*.

For the Latitude of *Mars*; by the laſt placeing of the Sector, I find by the divided lines on its legs, the diſtance of *Mars* from the *Earth* 76, and from the *Sun* 88 parts; and with the ſame Sector I alſo find the Argument of Latitude 5 Signes, 3 Degrees, or the Heliocentrick place of *Mars* in antecedence from ♈ ♂, 27 Degrees, which gives his Heliocentrick Latitude in the laſt little Table, 0 Degrees, 8 tenths: then from the Center of the Sector, laying one leg of it directly, either in the right line which paſſeth through the Satellites of ♃, or in that which pointeth out the place of the firſt Star of ♈, I ſet off to the point of the meeting of the ſaid lines the aforefound 76 parts, then I remove its other leg till it cut the aforefound 88 in the divided line of 110 parts; and keeping that leg with which I meaſured the 76 parts ſtill in his right line, and ſliding it down unto 8, or rather up unto 80 parts, repreſenting the aforefound 8 tenths of Heliocentrick Latitude, the other leg ſhall cut in the aforeſaid divided line either 9, or 90, and ſomewhat more. So have I found the proportion; As the diſtance of *Mars* from the *Earth*, 76 parts, is to his diſtance from the *Sun*, 88 parts; ſo is the Heliocentrick Latitude of *Mars*, 0 Degrees, 8 tenths, to his Geocentrick Latitude, 0 Degrees, 9 tenths and ſomewhat more, which,

which, because ♂ was passing from his ♌ to his ♍, was Northerly. Lastly, the Præcession of the Æquinox 38, which wants but little of 4 parts in the outermost divided Circle, answereth to 1 Degree and almost 4 tenths in that of Degrees; this added to the aforefound Geocentrick Longitudes of the *Sun*, *Mars*, and the Star, gives their true places from the Vernal Æquinox.

Therefore, from the Æquinox, the Sun was in ♍ 24 degrees, 6 tenths; *Mars* in ♏ 1 degree 3 tenths, his Latitude *North*, 0 degrees 9 tenths and somewhat more; the Star in ♏ 1 degree and almost 4 tenths, with Latitude *North*, 1 degree, and almost 1 tenth; being consentaneous to the verity of Observation.

Here take notice, that one Leg of the *Sector* is fixed at the end of the Arch, but the other is movable upon it; and for each Quadrant of the given Mean-Anomaly, you are always to lay one leg of the *Sector* as followeth, *viz.*

1. From 0, to 2500 parts	The fixed Leg at the *Aphelion.*
2. From 2500, to 5000 parts	The movable, at the *Perihelion.*
3. From 5000, to 7500 parts	The fixed, at the *Perihelion.*
4. From 7500, to 10000 parts	The movable at the *Aphelion.*

Farther note, that the Parallax of the *Orbe* at ♄ or ♃, is always to be found by the place of the Earth in her lesser *Ellipsis*, which is given by the same extent of the thread which passeth by her place in her larger *Ellipsis*. But for the Place of any other Planet, use the larger *Ellipsis* as well of the Earth as of the Planet.

For the Geocentrick place of ☿ or ♀; you are to find the Elongation from ☉, by applying the Center of the *Sector* to the place of the Earth in her *Ellipsis*, one leg thereof by the place of the Planet in its *Ellipsis*, and the other by the Center of the *Sun*.

If ♄, ♃ or ♂ be found Oriental, the Parallax of the Earths Orbe is to be Added, If Occidental substracted, to or from the Heliocentrick place of the Planet.

But

But if ♀ or ☿ be found Oriental, the Elongation is to be ſubſtracted, if Occidental added, to or from the Geocentrick place of the *Sun*.

And the ſumme or remainer ſhall be the Geocentrick place of the Planet.

In all other reſpects, the aforegoing example of *Mars* (together with that which here followeth) may well ſuffice.

The Apparent places of ☉, ♄, ♃, ♂, ♀, & ☿, computed by the aforementioned Tables and Syſteme, to the year of *Chriſt*, 1675 *January* the firſt day at noon.

Mean Anomaly of ☉—5390 | Præceſſ: of the Æq.—795

Heliocentrick Place of ☉--2.22 9	Præc. in degrees.	0 . 28. 6
Geocentrick place of ☉.		8. 22. 9
Place of ☉ from the Æquinox.		♍. 21. 5

Mean Anomaly of—	♄.3541	♃.1642	♂. 7835 var.—1	♀. 4225	☿.7310 var—4
	ſ. 0 6	ſ. 0.	ſ. 0	ſ. 0	ſ. 0
Heliocentrick place	11.29.	7. 4.4	1.23.3	2. 6.7	5. 1.0
Parall. Orb. and Elong.	—6.1	+. 7.0	—1.4.3	+1.4.2	—23.6
Geocentrick Place	11.23.5	7.11.4	0. 19.0	9.27.1	7.29.3
From the Æquinox.	♈.22.1	♊. 10. 0	♉. 17.6	♎. 25.7	♐.27.9
Diſtance from the Earth.	91	60	47	20	50
Diſtance from the Sun.	92	53	86	40	22
Argument of Latit.	9. 7. 1	4. 26.4	1. 4. 2	0.21.4	4. 15.1
Heliocentrick Latit.	A. 2. 5	B. 0. 7	B. 1. 0	B. 1. 2	B. 4.9
Geocentrick Latit.	2.5	0. 6	1.9	2. 5	2.1

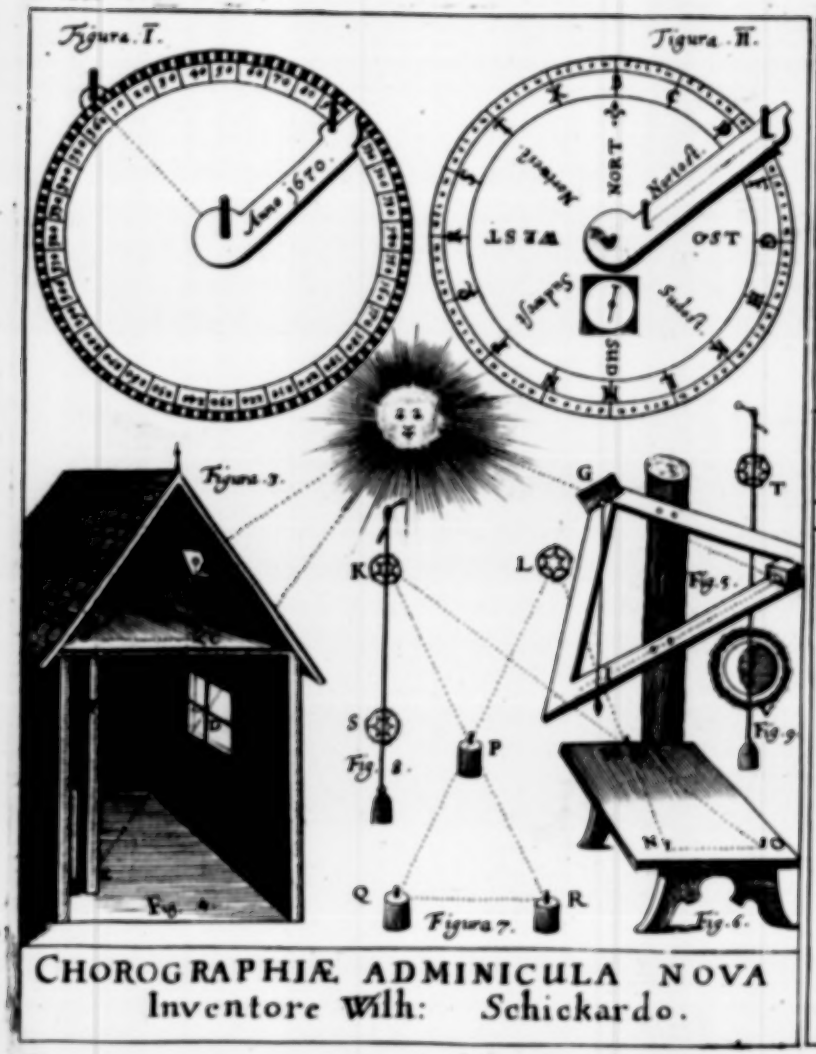
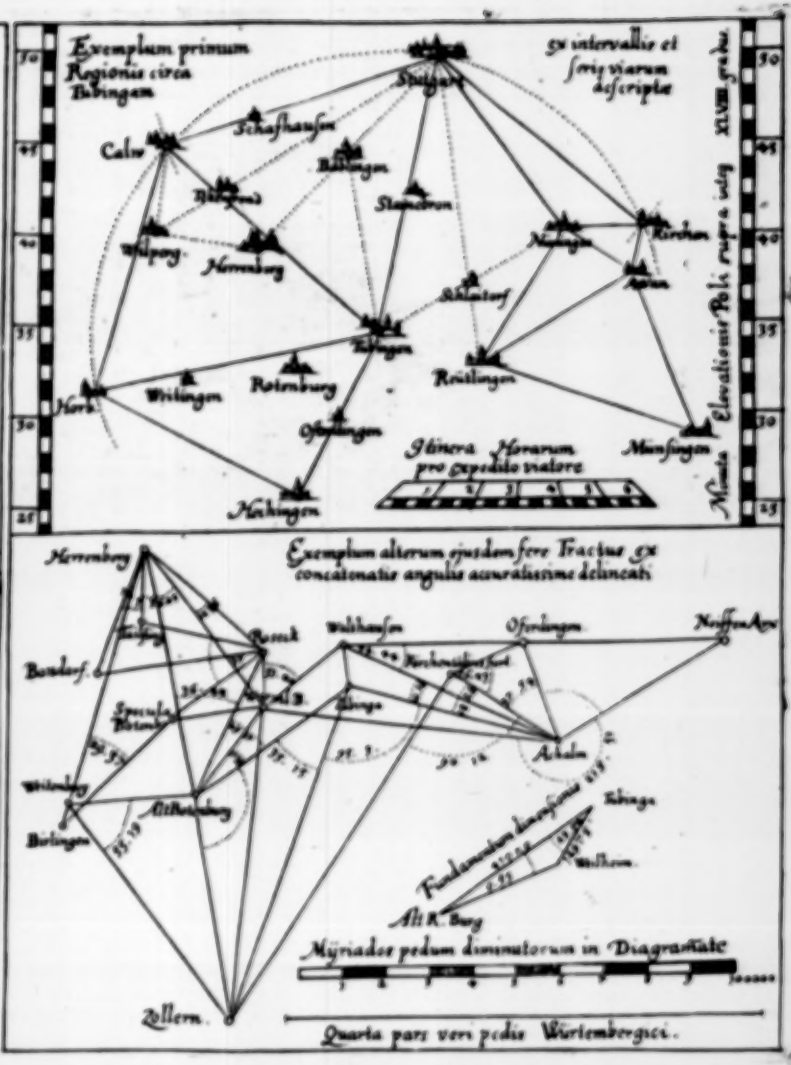


Figura I.
Anno 1670.
Figura II.
NORT
OST
SUD
WEST
Nordost
Nordwest
Südost
Südwest
Figura 3.
Fig. 4.
Figura 7.
Fig. 8.
Fig. 5.
Fig. 9
Fig. 6.
CHOROGRAPHIÆ ADMINICULA NOVA
Inventore Wilh: Schickardo.


Exemplum primum Regionis circa Tubingam
Spitzberg
Schaffhausen
Calw
Böblingen
Stammheim
Nagold
Kirchen
Wildberg
Herrenberg
Ehningen
Rohrdorf
Reutlingen
Herb
Weilingen
Rotenburg
Ofterdingen
Münsingen
Hechingen
Itinera Horarum pro expedito viatore
Elevationis Poli supra vdig
Exemplum alterum ejusdem fere Tractus ex concatenatis angulis accuratissime delineati
Herrenberg
Bondorf
Gültstein
Remd
Walddorf
Ofterdingen
Neuffen Arx
Ehningen
Weilderstadt
Altenburg
Böblingen
Achalm
Zwifalten
Zollern
Alt Rauber Burg
Myriades pedum diminutorum in Diagrammate
Quarta pars veri pedis Wirtembergici.

An. Chri. Curren.	Anom. Med. ☉	Præcef. Æquin.	Anomalia Media. ♄	♃	♂	♀	☿
1	5678	144	5346	383	7562	3401	2695
1601	5389	767	8424	9257	4387	1336	4769
1661	5379	790	8789	9839	3393	6633	5972
1681	5375	798	5577	6700	9728	1733	6373
1701	5371	806	2366	3561	6063	6832	6774
1721	5368	813	9154	422	2399	1931	7175
1741	5364	821	5943	7283	8734	7030	7575
1761	5361	829	2731	4144	5069	2129	7976
1781	5357	837	9520	1005	1405	7228	8377
1801	5353	844	6308	7866	7740	2328	8778
1901	5335	883	251	2171	9417	7824	783
2001	5317	922	4193	6475	1093	3320	2787
An 20	9996	8	6788	6861	6335	5099	401
40	9993	16	3577	3722	2671	198	802
60	9989	23	365	583	9006	5298	1203
80	9986	31	7154	7444	5341	397	1604
100	9982	39	3942	4305	1677	5496	2005
200	9964	78	7885	8609	3353	992	4009
300	9946	117	1827	2914	5030	6488	6014
400	9928	156	5769	7219	6706	1984	8019
500	9910	194	9712	1523	8383	7480	23
600	9892	233	3654	5828	59	2976	1028
700	9874	272	7597	132	1736	8472	4032
800	9856	311	1539	4437	3412	3968	6037
900	9838	350	5481	8742	5089	9464	8042
1000	9820	389	9424	3046	6765	4959	46
2000	9640	778	8847	6093	3531	9919	93
3000	9459	1167	8271	9139	296	4878	139
4000	9279	1556	7694	2185	7062	9838	185
5000	9099	1944	7118	5231	3827	4797	231
6000	8919	2333	6542	8278	593	9757	278

Annis	Anom. med. ☉	Præ. Æq.	Anomalia Media. ♄	♃	♂	♀	☿
1	9993	0	339	842	5313	6244	1492
2	9986	1	678	1685	626	2488	2983
3	9979	1	1018	2527	5939	8731	4475
4	9999	2	1358	3372	1267	5010	6080
5	9992	2	1697	4215	6580	1264	7572
6	9985	2	2036	5057	1893	7508	9063
7	9978	3	2375	5900	7206	3751	555
8	9999	3	2715	6744	2534	40	2160
9	999	4	3055	7587	7847	6284	3652
10	9985	4	3394	8429	3160	2527	5144
11	9977	4	3733	9272	8474	8771	6635
12	9998	5	4073	117	3801	5060	8241
13	9991	5	4412	959	9114	1303	9732
14	9984	5	4751	1801	4427	7547	1224
15	9977	6	5091	2644	9741	3791	2715
16	9997	6	5431	3489	5068	79	4321
17	9990	7	5770	4331	381	6323	5812
18	9983	7	6109	5174	5694	2567	7304
19	9976	7	6448	6016	1008	8811	8796
20	9996	8	6788	6861	6335	5099	401
Janu.	0		0	0	0	0	0
Feb.	849		29	72	451	1380	3524
Mart.	1615		55	136	859	2626	6707
April	2464		84	208	1310	4005	231
Maii.	3285		112	277	1747	5340	3641
Junii	4134		140	349	2198	6720	7165
Julii.	4955		168	418	2635	8055	575
Aug.	5804		197	489	3086	9435	4099
Sept.	6653		226	561	3537	814	7623
Octo.	7474		254	630	3974	2149	1033
Nov.	8323		283	702	4425	3529	4557
Dec.	9144		310	771	4862	4864	7968

In Anno Bissextili p ſt Februarium,
Adde unum diem & unius diei motum.

Dies	Anomalia Media. ☉	☿	♀	♂	♃	♄
1	27	1	2	15	45	114
2	55	2	5	29	89	227
3	82	3	7	44	134	341
4	110	4	0	58	178	455
5	137	5	12	73	223	568
6	164	6	14	87	267	682
7	192	7	16	102	312	796
8	219	7	18	116	356	909
9	246	8	21	131	401	1023
10	274	9	23	146	445	1137
11	301	10	25	160	490	1250
12	329	11	28	175	534	1364
13	356	12	30	189	579	1478
14	383	13	32	204	623	1591
15	411	14	35	218	668	1705
16	4 8	15	37	233	712	1819
17	465	16	39	247	757	1932
18	493	17	42	262	801	2046
19	520	18	44	277	846	2160
20	548	19	46	291	890	2274
21	575	20	48	306	935	2387
22	602	20	51	320	979	2501
23	630	21	53	335	1024	2615
24	657	22	55	349	1068	2728
25	684	23	58	364	111	2842
26	712	24	60	378	1157	2956
27	739	25	62	393	120	3069
28	767	26	65	407	1246	3183
29	794	27	67	422	291	3297
30	821	28	69	437	1335	3410
31	849	29	72	451	1380	3524
32	876	30	74	466	1424	3638

Hor.	Anomalia Media. ☉	♄	♃	♂	♀	☿
1	1	0	0	1	2	5
2	2	0	0	1	4	9
3	3	0	0	2	6	14
4	5	0	0	2	7	19
5	6	0	0	3	9	24
6	7	0	1	4	11	28
7	8	0	1	4	13	33
8	9	0	1	5	15	38
9	10	0	1	5	17	43
10	11	0	1	6	19	47
11	13	0	1	7	20	52
12	14	0	1	7	22	57
13	15	1	1	8	24	62
14	16	1	1	8	26	66
15	17	1	1	9	28	71
16	18	1	2	10	30	76
17	19	1	2	10	34	81
18	21	1	2	11	33	85
19	22	1	2	12	35	90
20	23	1	2	12	37	95
21	24	1	2	13	39	99
22	25	1	2	13	41	104
23	26	1	2	14	43	109
24	27	1	2	15	45	114

Variatio Anom. Med. ♂ & ♀ in part. Circuli. 10000					
Sig. Add.	Anom. Sub.		Gr An.	Variat. ♂	♀
0 .6	3 .9		0	0	0
			10	1	6
			20	2	11
1 .7	4 .10		0	3	15
			10	3	17
			20	3	17
2 .8	5 .11		0	3	15
			10	2	11
			20	1	6
3 .9	6 .0		0	0	0

Dist. à ☊ vel ☋	Latitudo Heliocentrica,					R.	Curv. Max.
	♄	♃	♂	♀	☿	☿	
S. gr.	gr. d	gr. d	gr. d	gr. d	gr. d	d.	d.
0. 0	0. 9	0. 0	0. 0	0. 0	0. 0	0	0
10	0. 4	0. 2	0. 3	0. 6	1. 2	1	0
20	0. 9	0. 5	0. 6	1. 2	2. 4	1	0
1. 0	1. 2	0. 7	0. 9	1. 7	3. 4	2	0
10	1. 6	0. 9	1. 2	2. 2	4. 4	2	1
20	1. 9	1. 0	1. 4	2. 6	5. 3	2	1
2. 0	2. 2	1. 2	1. 6	2. 9	6. 0	2	1
10	2. 3	1. 3	1. 8	3. 2	6. 5	1	2
20	2. 5	1. 3	1. 8	3. 3	6. 8	1	2
3. 0	2. 5	1. 1	1 9	3. 4	6. 9	0	2

Curtatio Max. est in Eleng. Max. ☿ à ☉

Tabulæ Æquationis Temporis.

Subtrahe ab Apparente.

Locus ☉ Verus.

Sig.	♈ ♎	♉ ♏	♊ ♐	
gr.	mi.	mi.	mi.	gr.
0	0	8	9	30
10	3	10	7	20
20	6	10	4	10
30	8	9	0	0
	♋ ♑	♌ ♒	♍ ♓	Sig.

Adde ad Apparens.

Adde ad Apparens.

Anomalia Terra Media.

Sig.	0	1	2	3	4	5	
gr.	mi.	mi.	mi.	mi.	mi.	mi.	gr.
0	0	4	7	8	7	4	30
10	1	5	7	8	6	3	20
20	3	6	8	8	5	1	10
30	4	7	8	7	4	0	0
	11	10	9	8	7	6	Sig.

Subtrahe ab Apparente.

Lunæ Tabula Mediorum Motuum.

An. Chri. Curren.	Mot. Med. ☽	Apogæi	☊ ret.	Annis	Mot. Med. ☽	Apogæi	☊ ret.
1	3402	7838	7408	1	3594	1130	537
1601	207	6356	7822	2	7188	2259	1074
1661	1337	4176	5585	3	782	3389	1611
1681	5048	6782	4839	4	4742	4521	2149
1701	8758	9389	4094	5	8336	5651	2686
1721	2468	1995	3348	6	1930	6780	3223
1741	6178	4602	2603	7	5524	7910	3760
1761	9888	7208	1857	8	9484	9043	4298
1781	3598	9815	1112	9	3078	172	4835
1801	7308	2421	366	10	6672	1302	5372
1901	5858	5454	6638	11	266	2431	5909
2001	4409	8486	2910	12	4226	3564	6447
Annis	*M. Med.* ☽	*Apog.*	*☊ ret.*	13	7820	4693	6984
20	3710	2606	746	14	1414	5823	7521
40	7420	5213	1491	15	5008	6953	8058
60	1130	7819	2237	16	8968	8085	8596
80	4840	426	2982	17	2562	9215	9133
100	8550	3032	3728	18	6156	344	9670
200	7101	6065	7456	19	9750	1474	207
300	5651	9097	1184	20	3710	2606	746
400	4201	2130	4912	*Jan.*	0	0	0
500	2752	5162	8639	*Feb.*	1746	96	46
600	1302	8194	2367	*Mar.*	1595	183	87
700	9852	1227	6095	*April*	2941	279	132
800	8403	4259	9822	*Maii.*	3921	371	177
900	6953	7292	3551	*Junii*	5268	467	222
1000	5503	324	7279	*Julii*	6248	560	266
2000	1007	648	4558	*Aug.*	7594	656	312
3000	6510	972	1837	*Sept.*	8941	752	357
4000	2014	1296	9116	*Oct.*	5921	845	402
5000	7517	1620	6395	*Nov.*	1267	941	447
6000	3021	1944	3674	*Dec.*	2248	1034	491

In Anno Bissextili post Februarium,
Addenum Diem & unius diei motum

Lunæ Tabula Mediorum Motuum.

Dies.	*Mot. Med.* ☽	*Apog.*	☊ *r.*
1	366	3	1
2	732	6	3
3	1098	9	4
4	1464	12	6
5	1830	15	7
6	2196	19	9
7	2562	22	10
8	2928	25	12
9	3294	28	13
10	3660	31	15
11	4026	34	16
12	4392	37	18
13	4758	40	19
14	5124	43	21
15	5490	46	22
16	5856	50	24
17	6222	53	25
18	6588	56	26
19	6954	59	28
20	7320	62	29
21	7686	65	31
22	8052	68	32
23	8418	71	34
24	8784	74	35
25	9150	77	37
26	9516	80	38
27	9882	84	40
28	248	87	41
29	614	90	43
30	980	93	44
31	1346	96	46
32	1712	99	47

Hor.	*Mot. Med.* ☽	*Apog.*	☊ *r.*
1	15	0	0
2	31	0	0
3	46	0	0
4	61	1	0
5	76	1	0
6	92	1	0
7	107	1	0
8	122	1	0
9	137	1	1
10	153	1	1
11	168	1	1
12	183	2	1
13	198	2	1
14	214	2	1
15	229	2	1
16	244	2	1
17	259	2	1
18	275	2	1
19	290	2	1
20	305	3	1
21	320	3	1
22	33	3	1
23	351	3	1
24	366	3	1

	Mot. med. ☽		
mi. 4	*m.* 1	*mi.* 31	*m.* 8
8	2	35	9
12	3	39	10
16	4	43	11
20	5	47	12
24	6	51	13
28	7	55	14
31	8	59	15

Tabula Æquat. ☊ ☽.			
Sig. Diſt. ☽ à ☉			Æq. ☊
Sub.	Add.	gr.	gr. d.
0 . 6	3 . 9	0	0 . 0
		10	0 . 6
		20	1 . 1
1 . 7	4 . 10	0	1 . 5
		10	1 . 7
		20	1 . 7
2 . 8	5 . 11	0	1 . 5
		10	1 . 1
		20	0 . 6
3 . 9	6 . 0	0	0 . 0

Tabula Exceſſus ☽ *Latitudinis maximæ amplius* 5 *grad. atque Latitudinis ſimplicis, & Reductionis mediæ.*

Diſt. ☽ à ☉ pro Exceſſ. Arg. Lat. ☽ pro Lat. &c.				Exc.	Lat.	Red.
Sig. B. A	gr. Sub.	Sig. B. A.	gr. Add.	mi.	gr. mi.	mi.
0. 6	0	6. 0	0	0	0. 0	0
0. 6	10	5. 11	20	1	0. 52	2
0. 6	20	5. 11	10	2	1. 42	4
1. 7	0	5. 11	0	4	2. 30	6
1. 7	10	4. 10	20	7	3. 13	7
1. 7	20	4. 10	10	11	3. 50	7
2. 8	0	4. 10	0	13	4. 20	6
2. 8	10	3. 9	20	16	4. 42	4
2. 8	20	3. 9	10	17	4. 55	2
3. 9	0	3. 9	0	18	5. 0	0

Tabula Motus Medii Lunæ à Sole.

An. Chri. Curren.	Mot. Med. ☽ à ☉	Annis	Mot. Med. ☽ à ☉	Dies.	Mot. Med ☽ à ☉	Hor.	Mot. m ☽ à ☉
1	5681	1	3601	1	339	1	14
1601	2153	2	7201	2	677	2	28
1661	3271	3	802	3	1016	3	42
1681	6977	4	4741	4	1355	4	56
1701	682	5	8342	5	1693	5	71
1721	4388	6	1942	6	2032	6	85
1741	8094	7	5543	7	2370	7	99
1761	1800	8	9482	8	2709	8	113
1781	5506	9	3083	9	3048	9	127
1801	9212	10	6684	10	3386	10	141
1901	7741	11	284	11	3725	11	155
2001	6271	12	4274	12	4064	12	169
Annis	M☽ à ☉	13	7824	13	4402	13	183
20	3706	14	1425	14	4741	14	198
40	7412	15	5025	15	5079	15	212
60	1118	16	8965	16	5418	16	226
80	4824	17	2565	17	5757	17	240
100	8529	18	6166	18	6095	18	254
200	7059	19	9767	19	6434	19	268
300	5588	20	3706	20	6773	20	282
400	4118	*Jan.*	0	21	7111	21	296
500	2647	*Feb.*	498	22	7450	22	310
600	1177	*Mar.*	9979	23	7789	23	325
700	9706	*April*	477	24	8127	24	339
800	8236	*Maii.*	636	25	8466		
900	6765	*Junii*	1113	26	8804		
1000	5295	*Julii*	1292	27	9143		
2000	590	*Aug.*	1790	28	9482		
3000	5884	*Sept.*	2288	29	9820		
4000	1179	*Oct.*	2447	30	159		
5000	6474	*Nov.*	2944	31	498		
6000	1769	*Dec.*	3103	32	836		

In Anno Bissextili post Februarium,
Adde unum Diem & unius diei motum.

A Table for the Conversion of Signes, Degrees, and Minutes, into 10000 parts of a Circle; *& contra.*

Sign.	Parts.
1	833
2	1667
3	2500
4	3333
5	4167
6	5000
7	5833
8	6667
9	7500
10	8333
11	9167
12	10000

Deg.	Parts
1	28
2	56
3	83
4	111
5	139
6	167
7	194
8	222
9	250
10	278
11	306
12	333
13	361
14	389
15	417
16	444
17	472
18	500
19	528
20	556
21	583
22	611
23	639
24	667
25	694
26	722
27	750
28	778
29	806
30	833

Min.	Parts
1	0
2	1
3	1
4	2
5	2
6	3
7	3
8	4
9	4
10	5
11	5
12	6
13	6
14	6
15	7
16	7
17	8
18	8
19	9
20	9
21	10
22	10
23	11
24	11
25	12
26	12
27	12
28	13
29	13
30	14

Min.	Parts
31	14
32	15
33	15
34	16
35	16
36	17
37	17
38	18
39	18
40	19
41	19
42	19
43	20
44	20
45	21
46	21
47	22
48	22
49	23
50	23
51	24
52	24
53	25
54	25
55	25
56	26
57	26
58	27
59	27
60	28

Of the Systeme of the Moon, &c.

THe Motion of the Moon about the Earth, differeth from that of the Primary Planets about the *Sun*; as well in regard of her three Middle-Motions first expressed in her Tables, as of her several Inequalities, which by her Systeme and the two little Tables next after the said Middle-Motions, shall be made appear.

And for finding the true place of the Moon at all times.

1. To the given Time, find the true Longitude of the *Sun* from the Vernal *Æquinox*, as afore.

2. Gather the Middle-Motion of the Moon from the *Æquinox*, and also of her *Apogeon*, in like manner as other Middle-Motions; only the *Node* being *Retrograde*, contrarily add or substract its Motion, to or from its Radical place answerable to the year first found in the Table.

And the said three Middle-Motions, being (by help of the last Table which is added for this and the like purposes) Converted into Signes, Degrees and Minutes, you may take (as being here sufficient) only Signes, Degrees and Tenths.

3. From the true Longitude of ☉ from the *Æquinox*, substract the mean *Apogeon* of ☽, and the remainer shall be the Annual Argument; by which, in the divided Circle described upon *a*, extending the thread from the Center of the Systeme, it shall cut, in the Arch of Degrees next above it, the Æquation of the *Apogeon*, equal to the Angle of its libration at the Center of the Earth expressed by a parallel to the said thread; which Æquation or Angle, if it fall on the right hand of *a*, added, but if on the left hand, Substracted, to or from the Mean, gives the true *Apogeon* of ☽ for that time.

Then, from the Middle-Motion of ☽, substract her true *Apogeon*; the remainer is her *Mean Anomaly*.

4. In the uppermost of the two little Circles, which are placed in equal distances from the Center of the Systeme; the same extent of the thread which passed by the Annual

Argument in that whoſe center is *a*, paſſeth alſo by a point at the like arch in this, accounted from the true *Apog.* from which point, a perpendicular falling on the Line of the ſaid *Apog.* ſhall cut the ſame at the *Focus* of the Middle Motion of of the *Moon*: And ſo much as this *Focus* of Middle-Motion falleth above the Center of the whole Syſteme or Ellipſis of of the *Moon*; in the like diſtance preciſely is the other *Focus* or the Center of the *Earth* below it.

5. To the aforefound *Mean-Anomaly* of the ☽, open the *Sector*, and lay the Center of it on the *Focus* of the Middle-Motion, and (as was afore ſhewn for finding of the places of the Primary Planets) the one leg directly in the line of the true *Apogeon*, ſo that the other leg ſhall cut the true place of of the *Moon* in her *Ellipſis*, by which extend the thread and there leave it; Then opening again the *Sector*, and laying its Center on the ſaid true place, the one leg by the *Focus* of Middle-Motion, and the other leg by the other *Focus* or the Center of the *Earth*; you ſhall have in the Arch, the Moons Æquation; which, if the *Mean Anomaly* was leſs than 6 Signes ſubſtracted, but if more Added, to or from the Middle Motion of the Moon, the ſum or remainer ſhall be her Æquated place.

6. From the Æquated place of the *Moon*, ſubſtract the true place of the *Sun*: the Remainer is the Æquated Longitude of the *Moon* from the *Sun*: Then in the little Circle at the *Apogeon*, ſuppoſing it ſo divided and numbred the ſame way from its ſupreme point, as that which is deſcribed upon *a*, account the ſaid Æquated Longitude, and from the point where it falls, a Parallel to the line of the *Apog.* cutting the Moons *Ellipſis*: Lay one leg of the *Sector* at this Section, the Center at the loweſt point of the lowermoſt of the three leaſt Circles, and the other leg at the true *Apogeon*. Then in the Arch of the *Sector*, the little Angle ſo meaſured, is equal to the *Variation* which if it fall on the right hand of the true *Apogeon*, Added, on the left hand, Subſtracted, to or from the Æquated place of the *Moon*, the ſum or remainer is her true place in her *Orbite*.

7. With

7. With the aforefound Longitude or Diſtance of ☽ from ☉, In *Tabula Æquat.* ☊ ☽ (by making proportion for intermediate Degrees) you have the Æquation of ☊, which according to the Titles, Added or Subſtracted, to or from the Middle Motion of ☊, gives its true place: and this ſubſtracted from the laſt found place of ☽, leaves the Argument of Latitude.

And, in *Tabula Exceſſus*, &c. by the ſaid Diſtance of ☽ from ☉, there is given (by proportion as afore) the Exceſs of the Moons greateſt Latitude; and by the Argument of Lat. her ſimple Latitude, and mean Reduction.

Then, as the Titles ſhew, the Argument of Latitude being in the firſt and third quadrants, the Reduction Subſtracted; but in the ſecond or fourth quadrants, Added, to or from the place of ☽ in her Orbite, gives her true place reduced to the Ecliptick.

Alſo, as 5 Degrees, is to the aforefound Exceſs; ſo is the Simple Latitude, to the proportionable Exceſs, which added to the ſimple Latitude, the ſum is the true Latitude of the Moon; which, if the Argument of Lat. be leſs than 6 Signes, is North, but if more, it is South: as is expreſſed by the Letters, B and A, on the top.

All which will be yet farther explained by theſe three following Examples.

1. *Anno.* 1586. *September* the 22th. day, 14 hours and 24 Minutes, was the Mean or Equal time reduced unto *London*; when Noble *Tycho Brahe* obſerved the true place of the Moon in ♈ 7 deg. 25 mi.

The true place of the Sun was then in ♎ 9 deg. and 4 tenths: And for the place of the Moon, the operation ſtands thus;

	Mot. ☽.	*Apog.*	☊. *ret.*
			7822
An. Chri. 1601	0207	6356	*add.* 746
Sub. ——— 20	3710	2606	8568.*r*
Anno 1581	6497	3750	2686
Add. 5	8336	5651	357
Sept.	8941	752	32
day. 22	8052	68	1
ho. 14	214	2	
mi. 24	6		3076
Middle Motions.	2046	223	5492 *Sub.*
	ſ °	ſ °	ſ °
In Sig. & Deg.	☽.2.13 6	*Ap.*0.8.0	6.17.7. ☊ *med.*
True Apog.	0. 8 5	☉.6.9.4	1.6 *æq. ſub.*
Mean Anom:	2.5.1	*Ann. Arg*	6.16.1 ☊ *ver.*
Æquat. Sub.	6.7	6.1.4	
☽ æquated	2.6.9	*æq ad.*0.5	
☉	6 9 4		
☽ from ☉	7. 25.5	*True Apog.*	
Variat. Add.	0.6	0.8 5	
☽ in her Orb.	2. 7.5		*deg. Mi.*
☊. Sub.	6. 16.1	Exceſs. gr. Lat —12	
Arg. of Lat.	7. 21.4	Simple Lat.—3. 54	
Reduc. Sub.	1	Exceſs. ——— 10	
☽ in the Eclipt.	♈. 7 4	True Lat. So. 4. 4	

2 *Anno.*

2. *Anno.* 1594. December the 19th. day, 15 hours and 3 minutes æquated and reduced as afore, the true place of the Moon was observed by *Tycho* in ♌. 13 de. 49 mi. and her Latitude North, 5 de. 5 mi.

The place of the Sun was then in ♑. 8 deg. and 3 tenths.

	Mot. ☽.	Apog.	☊. ret.
An. Chri. 1581	6497	3750	8568
Add. 13	7820	4693	6984
Dec.	2248	1034	491
day. 19	6954	59	28
ho. 15	229	2	1
mi. 3	1	0	7504. Sub.
Middle Motions.	3749	9538	1064.
	ſ ○	ſ ○	ſ ○
In Sig. & Deg.	☽. 4. 16. 0	*Ap.* 11, 13 4	1. 8. 35 ☊med
True Apog.	11. 2 9	⊙. 9. 8. 3	1. 7 æq. ſu
Mean Anom.	5. 13. 1	*Ann. Arg.*	1. 6. 6. ☊ver.
Æquat. Sub.	1. 7	9. 24 9	
☽ æquated	4. 14. 3	○ ′	
⊙	9. 8. 3	æq Su: 10. 5	
☽ from ⊙	7. 6. 0	True Apog.	
Variat. Sub.	0 6	11. 2. 9	
☽ in her Orb.	4. 13. 7	deg. mi.	
☊ Sub.	1. 6 6	Excess. gr. Lat. — 6	
Arg. of Lat.	3. 7 1	Simple Lat. 4. 57	
Reduc. Add.	0	Excess 6	
☽ in the Eclipt.	☊: 13. 7	True Lat. No. 5. 3	

3. For

3. For the true place of the Moon *Anno* 1675. *January*, the first day at noon. T. M.

The place of the Sun is in ♑. 21 deg. 5 tenths.

	Mot. ☽.	Apog.	☊.ret.
An. Chri. 1661	1337	4176	5585
Add. 14	1414	5823	7521 } Sub.
January day. 1	366	3	1 }
Middle Motions	3117	0002	8063
	ſ ○	ſ. ○.	ſ ○
In Sig. & Deg.	☽. 3.22.2	*Ap.* 0.0.1	9.20.3.☊ med
True Apog.	11.20.5	☉9.21.5	0.2 æq.add
Mean Anom:	4. 1. 7	*Anm. Arg.*	9.20.5.☊ ver.
Æquat. Sub.	4. 6	9.21.4	
☽ æquated.	3.17.6	æq.ſu.9.6	
☉	9.21.5	True Apo.	
☽ from ☉.	5.26.1	11.20.5	
Variat.Sub.	1		
☽ in her Orb.	3.17.5		deg. mi.
☊	9.20.5	Exceſs.gr.Lat.	—0
Arg. of Lat.	5.27.0	Simple Lat.	0.16
Reduc. Add.	0	Exceſs.	—0
☽ in the Eclipt.	♋. 17.5	True Lat. No.	0.16

By this laſt Example and other conſequents it appears, that after 7 of the Clock in the former part of the night following the ſaid firſt day of *January* 1675, the Moon will be in the middle of a Total Eclipſe.

But

But here, to know if any of the Inhabitants of the Earth may observe an Eclipse of the *Sun* at the Conjunction, or of the *Moon* at the Opposition of the Luminaries, or not; according to their distance from ☊ or ☋, as in our *Memorial Verse* published *Anno* 1667, take this General Rule.

Number Degrees from either Node, where in *Moons* Latitudes to North or South begin:
Within Sixteen the *Sun*, and Ten the *Moone*,
Suffer Eclipse; above Eighteen, Twelve, none.

And for the More exact Limits of Eclipses, in Degrees and tenths of the distance of ☉ from ☊ or ☋, observe this little Table.

Sig. Arg.	0	1	2	3	4	5	6
Annui.	12	11	10	9	8	7	6
	gr. d.	gr. d.	gr. d.	gr. d.	gr. d.	gr. d.	gr. d.
Lim. Ecl. ☉	16. 2	16. 4	16. 7	17. 2	17. 6	18. 0	18. 2
☌ Vis. Cent.	10. 3	10. 4	10. 6	11. 0	11. 4	11. 7	11. 8
Lim. Ecl. ☽	12. 0	11. 8	11. 5	11. 0	10. 5	10. 2	10. 1
Ecl. ☽ Tot.	5. 6	5. 6	5. 3	5. 1	4. 8	4. 6	4. 5

The farther use of this, for the most easie and speedy obtaining of the parts deficient, or digits, &c. in Eclipses, I leave in this place to the consideration of the Ingenious.

Onely here note, that the half of one tenth of a degree, when the Earth is *Aphelion*, is to be Subtracted, and when she is *Perihelion*, Added, to or from the first limit in the Table of the Eclipse of ☉; but to or from both limits of the Eclipse of ☽, contrarily.

Lastly, the Courteous Reader may be pleased to take notice, that in the *Lunar Systeme* afore treated of, the two little circles K, K, serve as well for finding the true *Apogeon* as the Eccentricity; to either of which little circles, that at A, serving for the Variation of ☽, is equal: all being somwhat different from the limitations in the Theory of *Horrox* and Tables thereunto lately published.

Yet for the better finding of the *Apogeon* Mechanically, in stead of K, we use the larger Circle whose Center *a*, is proportionably farther distant from C.

But the description of our Theory of the *Moon* in all its parts, is reserved to the discovery of the *True Longitude*, or *Astronomy Geography and Navigation Compleated*; in which (God willing) if it be accepted of in time, something more shall be said of the Inequality of Natural Days, as also of the Parallax of the *Sun*, &c. And in the mean time, not regarding any ostentatious pretenders, nor yet the self ended, Envious, or Wilfully Ignorant, I remain a hearty well wisher unto all lovers of Truth and Ingenunity, and conclude,

Time tryeth Truth, convicting all that strive
Faln Systemes, Dead *Chimeras* to revive,
And he hath brought to light, by good success,
The Law which Nature never doth transgress.
Sol keeps his Throne, and round about him shines
Upon Six Worlds which walk in single lines;
And Eight less Globes, again encompassing,
One th' *Earth*, Four *Jove*, Three *Saturn* with his *Ring*:
All sing their Makers praise, and shew his power,
In due proportion moving every houre.
"Thrice happy they, that leaving wandring wayes,
"Do duely walk to their Creators praise.

FINIS.

Post-Script.

For the more speedy Use of the Planetary and Lunar Systemes.

For the true places of the Primary Planets.

1. TO the given time, gather the Middle-Motion of the Earth and also of the other Primary Planet or Planets whose places are required, from the first Star of *Aries*; for which purpose, this following little Table is here added, to be used in stead of that of the Mean Anomaly of each Planet to the radical years of Christ in the former part of the *9th* page; and for the Residue of years, with the Month, Day and Hour, take the Mean-Anomalies as you find them in the *9th*, *10th*, and *11th* pages, for they are the same as the Middle-Motions from the first Star of *Aries*.

An. Chr. Curren.	M. M. ☉ à 1 ✱ ♈	Pra. Æq.	♄	Motus Medius à ✱ 1 ♈ ♃	♂	♀	☿
1	2576	144	1943	4822	929	1039	8910
1601	2288	767	5021	3697	7754	8975	984
1661	2277	790	5368	4279	6760	4272	2187
1681	2273	798	2175	1140	3095	9371	2588
1701	2270	806	8963	8001	9430	4471	2989
1721	2266	813	5752	4862	5765	9570	3390
1741	2262	821	2540	1723	2101	4669	3791
1761	2259	829	9329	8584	8436	9768	4192
1781	2255	837	6117	5445	4771	4867	4593
1801	2252	844	2906	2306	1107	9967	4994
1901	2234	883	6848	6610	2783	5463	6998
2001	2216	922	790	915	4460	958	9003

2. Lay one ſide of your Rule or Sector by the Center of the Syſteme, and by the aforegathered Middle Motion of the Earth found in the outermoſt divided Circle: And take a flat pair of Compaſſes fitted for this buſineſs, laying one ſide of them by the afore-mentioned ſide of the Rule, and opening them ſo as to bring their foot or point on the other ſide exactly to the Focus of the Earths Middle-Motion in her larger Ellipſis; then ſliding the Compaſſes along by the ſame ſide of the Rule toward the aforeſaid Middle-Motion in the outermoſt Circle, the motion of the ſaid point paſſing in a Parallel to the Rule, ſhall cut the true place of the Earth in her ſaid larger Ellipſis; by which drawing forth the thread from the Center of the Syſteme, it ſhall cut the *Heliocentrick* Longitude of the Earth from the firſt Star of *Aries*, in either of the two outermoſt Circles.

And in like manner may you eaſily find the *Heliocentrick* Longitude of ♄, ♃, ♂, ♀ or ☿, firſt correcting the Middle-Motion of ♂ or ☿ by Variation according to their *Mean-Anomaly*, as in Page 12. And here, if you ſubſtract the fixt place of the *Aphelion* of the Planet from his Middle-Motion from the firſt Star of *Aries*, the remainer is his *Mean-Anomaly*.

3. Alſo for the *Geocentrick* Longitude of any of the ſaid five Planets, lay the ſide of your Rule by the Places of ♄ or ♃, in their Ellipſis, and of the Earth in her leſſer Ellipſis; but by the places of ♂, ♀ or ☿, and of the Earth in their larger Ellipſis: Then by the ſaid ſide of your Rule, laying one ſide of your Compaſſes, open them ſo that their foot or point on the other ſide ſhall paſs by the Center of the Syſteme or fixed place of the Sun, and ſlide them along by the Rule the ſame way that paſſeth from the Earth to the other Planet: So the Motion of the laſt mentioned foot or point of the Compaſſes, ſhall cut the *Geocentrick* Sidereal-Longitude of the ſaid Planet in the outermoſt Circles.

4. For the Latitude of ♄, ♃, ♂, ♀ or ☿, Subſtract the fixt place of the neareſt *Node* of the Planet, from the *Heliocentrick Sydereal-Longitude* of the ſaid Planet, or contrarily this from

from that, ſo that the Remainer may not exceed three Signes; this remainer (in *page* 12) gives the *Heliocentrick Latitude*, by which, and the Diſtances of the Planet from the Earth and Sun, you may eaſily find the *Geocentrick Latitude* of the Planet, as is ſhewn in the *Example* of ♂, *Page* 6.

For the true Place of the Moon,

The Work by the Rule and Compaſſes afore-mentioned, differeth from that which is afore-delivered on the *Syſteme* of the Moon, onely in the *5th. and 6th.* Precept, *Page* 20; and is thus:

Lay one ſide of your Rule by the Center of the *Syſteme*, and alſo by the *Mean-Anomaly* of the Moon found in the out-moſt divided Circle, and by the ſaid ſide of your Rule, lay one ſide of your Compaſſes, bringing their foot or point on the other ſide exactly to the *Focus* of the *Middle-Motion*, then ſlide them along the Rule towards the ſaid *Mean-Anomaly* in the divided Circle; ſo the Motion of the ſaid point ſhall cut the Æquated place of the Moon in her *Ellipſis*; by which laſt found Section, and by the other *Focus* repreſenting the Center of the Earth, lay one ſide of your Rule, and by this, one ſide of your Compaſſes, bringing their foot or point on the other ſide to paſs by the Center of the *Syſteme*, and ſliding them by the ſaid *Æquated* place, the Motion of the ſaid Point ſhall cut the *Æquated-Anomaly* of the Moon in both the divided Circles; to which *Æquated-Anomaly*, add the true *Apogeon*, and the Sum ſhall be the *Æquated* place of the Moon.

Next for the Variation, by help of the little Circle now placed above the *Apog.* The Parallel to the Line of the *Apog.* found as in *Page* 20, *Precept* 6, ſhall cut the Circle in which the Center of the ſaid little one is placed, in a certain point, by which drawing the thread from the Center of the *Syſteme*, the Arch in the divided Circle intercepted betwen this thread and the Line of the *Apogeon*, is equal to the *Variation*, which is to be applyed as in the latter end of the ſaid *6th Precept*.

Further

Further *Examples* are here needless: Onely observe, That for the use above mentioned, a Parallel may be easily set off several other wayes without Compasses, as by help of a plain *Rectangle* of Brass, or Box, &c. and a black-lead Pen.

TOuching *the Extract of Mr.* Flamsteed's *Letter of* November 25. 1674. *written to Mr.* Collins, *and published in the* Philosophical Transactions, Numb. 110. *the Reader may take notice, That in my* Lunar Systeme *(which Mr.* Flamsteed *calls* Moon-Wiser) *the greatest* Æquation *of the* Apogeon, *differeth about* 22′ *from that of the Ingenious Mr.* Horrox (*the shortness of whose life may be for ever lamented*) *nor is my greatest or least* Eccentricity, *nor yet my* Reflection *of* ☽ *the same with his; all which, with my taking of the* Elliptick Æquations *of the* Moon *according to the* Hypothesis *of the Learned Doctor* Seth Ward, *now Lord Bishop of* Salisbury, *and not that of* Horrox, *must needs cause several differences of minutes in her Longitude; neither were any of my* Middle-Motions *taken from his, or Mr.* Flamsteed's *Explication, as may be soon tried to any large intervals of time, by help of my Table for Conversion of Signs and Degrees, &c. in Page* 18. *As for the Mechanick work of the Systeme, I doubt not but it may be easily performed, if not exactly to one tenth, yet to much less than half a degree; but however, I am very well assured, that my explanation and correction of the* Theory *of* Horrox, *is not altogether needless or impertinent: And though I believe I know as well as Mr.* Flamsteed, *and perhaps knew before he did, how to resolve any proportion in* Triangles Mechanically, *unto less than one single minute, I shall rather choose to do it by numbers, and have great reason to suspect, that it must be some other kind of* Moon-Wiser *than he hath yet contrived, that shall shew her true place at all times unto one or two minutes. Thus much in opposition to the Untruths in the said Extract of Mr.* Flamsteed's *Letter.*

2. *Junii*, 1675. Thomas Streete.

MVSEVM BRITANNICVM

7350 b. 1[5]

THE Deſcription & Uſe OF THE PLANETARY SYSTEME,

~~£.27 59~~

Together with

Eaſie TABLES.

By which

The Apparent Motions of the Heavens may be readily found for ever.

by Thos Streete

LONDON

Printed by *J. Darby*, for *Robert Morden* at the Sign of the *Atlas* in *Cornhil*, and *William Berry* at the Sign of the *Globe* betwixt *York* House and the *New Exchange* in the *Strand*. 1674.

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UNIVERSITY OF TORONTO

The Description and Use OF THE Planetary Systeme, &c.

THE outermost divided Circle, is of 1000 parts, of which every 10 parts are numbred above; The next Circle within it, is of Degrees and halves, of which every Signe is numbred below, with a line to every 10 and 5 Degrees: The beginning from which the said Parts and Degrees are numbred, is at the Cypher, denoting the place of the first Star of *Aries* in the *Copernican* Catalogue: Then among the said numbers of signes are placed the Nodes of the Planets, thus Characterized, ☊ the Northern, and ☋ the Southern Node: Next, by lines drawn from the Center are expressed the *Aphelions* of the Planets, distinguished by their Characters; *viz.* A ♂, A ♃, A ♀, A ♄, A ☉, A ☿; and by shorter lines opposite to them and next under the numbers of signes, the *Perihelions*, marked P ♂, P ♃, *&c.* Then the *Ellipsis* of each Planet is described; *Saturn*'s and *Jupiter*'s only once; but those of *Mars*, the *Earth*, *Venus* and *Mercury* twice, first in lesser forms without divisions, and secondly in greater divided into every five Degrees, the Transverse (or longest) Diameter of the divided *Ellipsis* of each Planet, being in proportion to that of the undivided, as 11 to 2: Every Planets Character is set at the intersection of his *Ellipsis* with with the line of his *Aphelion*; where for farther distinction, to the larger ☿ added the figure 2. The Center of the first mentioned Circles, from which issueth two threads of several colours, representeth the fixed place of the *Sun*, the

Common *Focus* of the *Planetary Systeme*, the other *Focus* of each Planets *Ellipsis* is a point in the line of his *Aphelion*, for the lesser *Ellipsis* marked *f*, but for the greater *F*.

Then in some of the spaces, are placed near together on the one side, the figures of the bodies of the Planets, with the mean distance of the *Moon* from the *Earth*, according to their true proportions, supposing the true diameter of the body of the *Sun* equal to that of the greatest Circle circumscribing all the numbers; And on the other side, the greatest visible magnitudes of the Planets at the *Earth*, with the greatest visible distances of the secondary Planets about ♄ and ♃ from their primary, taking the Diameter of the last mentioned greatest Circle, for the visible Diameter of the *Sun* in his mean distance.

The right line of 110 equal parts, meeting at the larger *Ellipsis* of ♂ with the line which passeth through ♃ and his *Satellites*, and also with that which pointeth out the place of the first Star of ♈, is for measuring the Distances and Latitudes of the Planets, of which more below.

Now for finding the true places of the Planets and fixt Stars at all times; In the Tables for this purpose, for several years of *Christ* current, as also for the intermediate preceding and succeeding years, to the given Month day and hour, you have the *Mean-Anomaly* of each Planet, and the Præcession of the Vernal Equinox, with the Variation of ☾ and ☿, in 10000 parts of a Circle; And lastly the Heliocentrick Latitudes of the Planets, with the Reduction and greatest Curtation of ☿ in Degrees and Tenths: The Use of which Tables, together with the Planetary Systeme and the Secton fitted to it, will plainly appear by the following Examples.

In the year afore *Christ* 272., *January* the 17th. day, 15 hours reduced unto *London*, the Planet *Mars* was observed in a close Conjunction with the Northern bright Star of the forehead of the *Scorpion*. *Ptol. Lib.* 10. *Cap.* 9. To which time, by the aforesaid Tables and Systeme, I would know the Præcession of the Vernal Equinox, with the Apparent places of the *Sun* and *Mars*.

The

The fixt Longitude of the said Northern bright Star, is from the first Star of *Aries*, by the Observation of *Tycho Brahe*, 6 Sig. 29 deg. 59. min. and his correct Latitude North 1 deg. 4 min.

The Middle Motions are thus gathered.

	Anom ☉	Prec. æq.	Anom. ♂
Anno Chri. 1	5678	144	7562
Sub. 300	9946	117	5030
Ante Chri. 300	5732	27	2532
Adde 20	9996	8	6335
8	9999	3	2534
Januar. d. 17	465		247
Hor. 15	17		9
	6209	38	1657

Then opening the Sector to 6209 parts, that is 621 almost of the outermost parts of the Arch, I lay the Center thereof on the Focus of the Earth at F, and one leg of it directly in the line of her *Aphelion*, so that the other leg shall cut her true place in her larger Ellipsis, by which true place drawing forth one thread which I constantly use for the Earth, it cutteth in the Circle of Degrees, 3 Signes, 23 degrees and two tenths, the Heliocentrick Longitude of the Earth; where I leave the thread to remain by the weight of its Plummet, and to the said Longitude adding 6 Signes, it will be 9 Signes, 23 degrees and 2 tenths, the Geocentrick Longitude of the Sun from the first Star of *Aries*.

Next for the place of *Mars*, his Mean-Anomaly 1657, in the outermost Circle, answering to almost 2 Signes in that of degrees; In the Table of Variation I find 2 Signes under the Title Add: and right against 2 Signes, the variation of ♂ 3, which accordingly Added to 1657 parts, the sum is 1660, that is exactly 166 of the outermost arch, to which opening the Sector, I lay the Center of it on the Focus of *Mars* at F, and one leg directly in the line of his *Aphelion*,

so-

ſo that the other leg ſhall cut his true place in his larger Ellipſis, by which drawing forth the other thread, it cutteth in the Circle of Degrees, 5 Signes, 22 Degrees, 2 tenths, the Heliocentrick Longitude of *Mars*; and there leaving this other thread and plummet, I again open the Sector, laying its Center on the true place of *Mars* in his larger Ellipſis, the one leg by the place of the Earth in her larger Ellipſis, and the other leg by the Center of the *Sun*; and ſo in the Arch of Degrees, I find the parallax of the Earth's Orbe 1 Signe, 7 Degrees, 7 tenths, which, becauſe *Mars* is found Oriental, added to his Heliocentrick Longitude aforefound 5 ſigns, 22 Degrees, 2 tenths, the ſum is 6 Signs, 29 Degrees, 9 tenths, the Geocentrick Longitude of *Mars* from the firſt Star of *Aries*.

For the Latitude of *Mars*; by the laſt placeing of the Sector, I find by the divided lines on its legs, the diſtance of *Mars* from the *Earth* 76, and from the *Sun* 88 parts; and with the ſame Sector I alſo find the Argument of Latitude 5 Signes, 3 Degrees, or the Heliocentrick place of *Mars* in antecedence from ♈, 27 Degrees, which gives his Heliocentrick Latitude in the laſt little Table, 0 Degrees, 8 tenths: then from the Center of the Sector, laying one leg of it directly, either in the right line which paſſeth through the Satellites of ♃, or in that which pointeth out the place of the firſt Star of ♈, I ſet off to the point of the meeting of the ſaid lines the aforefound 76 parts, then I remove its other leg till it cut the aforefound 88 in the divided line of 110 parts; and keeping that leg with which I meaſured the 76 parts ſtill in his right line, and ſliding it down unto 8, or rather up unto 80 parts, repreſenting the aforefound 8 tenths of Heliocentrick Latitude, the other leg ſhall cut in the aforeſaid divided line either 9, or 90, and ſomewhat more. So have I found the proportion; As the diſtance of *Mars* from the *Earth*, 76 parts, is to his diſtance from the *Sun*, 88 parts; ſo is the Heliocentrick Latitude of *Mars*, 0 Degrees, 8 tenths, to his Geocentrick Latitude, 0 Degrees, 9 tenths and ſomewhat more, which,

which, because ♂ was passing from his ♌ to his ♍, was Northerly. Lastly, the Precession of the Æquinox 38, which wants but little of 4 parts in the outermost divided Circle, answereth to 1 Degree and almost 4 tenths in that of Degrees; this added to the aforefound Geocentrick Longitudes of the *Sun*, *Mars*, and the Star, gives their true places from the Vernal Æquinox.

Therefore, from the Æquinox, the Sun was in ♈ 24 degrees, 6 tenths; *Mars* in ♏ 1 degree 3 tenths, his Latitude *North*, 0 degrees 9 tenths and somewhat more; the Star in ♏ 1 degree and almost 4 tenths, with Latitude *North*, 1 degree, and almost 1 tenth; being consentaneous to the verity of Observation.

Here take notice, that one Leg of the *Sector* is fixed at the end of the Arch, but the other is movable upon it; and for each Quadrant of the given Mean-Anomaly, you are always to lay one leg of the *Sector* as followeth, *viz.*

1. From 0, to 2500 parts	The fixed Leg at the *Aphelion.*
2. From 2500, to 5000 parts	The movable, at the *Perihelion.*
3. From 5000, to 7500 parts	The fixed, at the *Perihelion.*
4. From 7500, to 10000 parts	The movable at the *Aphelion.*

Farther note, that the Parallax of the *Orbe* at ♄ or ♃, is always to be found by the place of the Earth in her lesser *Ellipsis*, which is given by the same extent of the thread which passeth by her place in her larger *Ellipsis*. But for the Place of any other Planet, use the larger *Ellipsis* as well of the Earth as of the Planet.

For the Geocentrick place of ♀ or ☿, you are to find the Elongation from ☉, by applying the Center of the *Sector* to the place of the Earth in her *Ellipsis*, one leg thereof by the place of the Planet in its *Ellipsis*, and the other by the Center of the *Sun*.

If ♄, ♃ or ♂ be found Oriental, the Parallax of the Earths Orbe is to be Added, If Occidental substracted, to or from the Heliocentrick place of the Planet.

But

But if ♀ or ☿ be found Oriental, the Elongation is to be substracted, if Occidental added, to or from the Geocentrick place of the *Sun*.

And the summe or remainer shall be the Geocentrick place of the Planet.

In all other respects, the aforegoing example of *Mars* (together with that which here followeth) may well suffice.

The Apparent places of ☉, ♄, ♃, ♂, ♀, & ☿, computed by the aforementioned Tables and Systeme, to the year of *Christ*, 1675, *January* the first day at noon.

Mean Anomaly of ☉—5390		Præcess: of the Æq.—795			
	s °			s °	
Heliocentrick Place of ☉--2.22 9		Præc. in degrees. 0 .28. 6			
Geocentrick place of ☉.——————————8. 22. 9					
Place of ☉ from the Æquinox.——————————♑. 21. 5					
Mean Anomaly of—♄.3541	♃.1642	♂. 7835 var.—1	♀. 4225	☿.7310 var+4	
s °	s. °	s. °	s. °	s. °	
Heliocentrick place--11.29.6	7. 4.4	1.23.3	2. 6.7	5. 1.0	
Parall. Orb. and Elong.—6.1	+. 7.0	—1.4.3	+1.4.2	—23.6	
Geocentrick Place—11.23.5	7.11.4	0.19.0	9.27.1	7.29.3	
From the Æquinox.—♈.22.1	♐. 10.0	♉.17.6	♒.25.7	♐.27.9	
Distance from the Earth. 91	60	47	20	50	
Distance from the Sun. 92	53	86	40	22	
Argument of Latit. 9. 7. 1	4. 26.4	1. 4. 2	0.21.4	4. 15.1	
Heliocentrick Latit. A. 2. 5	B. 0. 7	B. 1.0	B. 1. 2	B.4.9	
Geocentrick Latit. 2.5	0. 6	1.9	2. 5	2.1	

An. Chri. Curren.	Anom. Med. ☉	Præcef. Æquin.	Anomalia Media. ☿	♀	♂	♃	♄
1	5678	144	5346	383	7561	3401	2695
1601	5389	767	8424	9257	4387	1336	4769
1661	5379	790	8789	9839	3393	6633	5972
1681	5375	798	5577	6700	9728	1733	6373
1701	5371	806	2366	3561	6063	6832	6774
1721	5368	813	9154	422	2399	1931	7175
1741	5364	821	5943	7283	8734	7030	7575
1761	5361	829	2731	4144	5069	2129	7976
1781	5357	837	9520	1005	1405	7228	8377
1801	5353	844	6308	7866	7740	2328	8778
1901	5335	883	251	2171	9417	7824	783
2001	5317	922	4193	6475	1093	3320	2787
An20	9996	8	6788	6861	6335	5099	401
40	9993	16	3577	3722	2671	198	802
60	9989	23	365	583	9006	5298	1203
80	9986	31	7154	7444	5341	397	1604
100	9982	39	3942	4305	1677	5496	2005
200	9964	78	7885	8609	3353	992	4009
300	9946	117	1827	2914	5030	6488	6014
400	9928	156	5769	7219	6706	1984	8019
500	9910	194	9712	1523	8383	7480	23
600	9892	233	3654	5828	59	2976	2028
700	9874	272	7597	132	1736	8472	4032
800	9856	311	1539	4437	3412	3968	6037
900	9838	350	5481	8742	5089	9464	8042
1000	9820	389	9424	3046	6765	4959	46
2000	9640	778	8847	6093	3531	9919	93
3000	9459	1167	8271	9139	296	4878	139
4000	9279	1556	7694	2185	7062	9838	185
5000	9099	1944	7118	5231	3827	4797	231
6000	8919	2333	6542	8278	593	9757	278

Annis	Anom. med. ☉	Præ. Æq.	Anomalia Media. ♄	♃	♂	♀	☿
1	9993	0	339	842	5313	6244	1492
2	9986	1	678	1685	626	2488	2983
3	9979	1	1018	2527	5939	8731	4475
4	9999	2	1358	3372	1267	5010	6080
5	9992	2	1697	4215	6580	1264	7572
6	9985	2	2036	5057	1893	7508	9063
7	9978	3	2375	5900	7206	3751	555
8	9999	3	2715	6744	2534	40	2160
9	9992	4	3055	7587	7847	6284	3652
10	9985	4	3394	8429	3160	2527	5144
11	9977	4	3733	9272	8474	8771	6635
12	9998	5	4073	117	3801	5060	8241
13	9991	5	4412	959	9114	1303	9732
14	9984	5	4751	1801	4427	7547	1224
15	9977	6	5091	2644	9741	3791	2715
16	9997	6	5431	2489	5068	79	4321
17	9990	7	5770	4331	381	6323	5812
18	9983	7	6109	5174	5694	2567	7304
19	9976	7	6448	6016	1008	8811	8796
20	9996	8	6788	6861	6335	5099	401
Jann.	0		0	0	0	0	0
Feb.	849		29	72	451	1380	3524
Mart.	1615		55	136	859	2626	6707
April	2464		84	208	1310	4005	231
Maii.	3285		112	277	1747	5340	3641
Junii	4134		140	349	2198	6720	7165
Julii.	4955		168	418	2635	8055	575
Aug.	5804		197	489	3086	9435	4099
Sept.	6653		226	561	3537	814	7623
Octo.	7474		254	630	3974	2149	1033
Nov.	8313		283	702	4425	3529	4557
Dec.	9144		310	771	4862	4864	7968

In Anno Biſſextili poſt Februarium,
Adde unum diem & unius diei motum.

Dies	Anomalia Media.					
	☉	♄	♃	♂	♀	☿
1	27	1	2	15	45	114
2	55	2	5	29	89	227
3	82	3	7	44	134	341
4	110	4	9	58	178	455
5	137	5	12	73	223	568
6	164	6	14	87	267	682
7	192	7	16	102	312	796
8	219	7	18	116	356	909
9	246	8	21	131	401	1023
10	274	9	23	146	445	1137
11	301	10	25	160	490	1250
12	329	11	28	175	534	1364
13	356	12	30	189	579	1478
14	383	13	32	204	623	1591
15	411	14	35	218	668	1705
16	4 8	15	37	233	712	1819
17	465	16	39	247	757	1932
18	493	17	42	262	801	2046
19	520	18	44	277	846	2160
20	548	19	46	291	890	2274
21	575	20	48	306	935	2387
22	602	20	51	320	979	2501
23	630	21	53	335	1024	2615
24	657	22	55	349	1068	2728
25	684	23	58	364	1113	2842
26	712	24	60	378	1157	2956
27	739	25	62	393	1202	3069
28	767	26	65	408	1246	3183
29	794	27	67	422	1291	3297
30	821	28	69	437	1335	3410
31	849	29	72	451	1380	3524
32	876	30	74	466	1424	3638

Hor.	Anomalia Media.					
	☉	♄	♃	♂	♀	☿
1	1	0	0	1	2	5
2	2	0	0	1	4	9
3	3	0	0	2	6	14
4	5	0	0	2	7	19
5	6	0	0	3	9	24
6	7	0	1	4	11	28
7	8	0	1	4	13	33
8	9	0	1	5	15	38
9	10	0	1	5	17	43
10	11	0	1	6	19	47
11	13	0	1	7	20	52
12	14	0	1	7	22	57
13	15	1	1	8	24	6
14	16	1	1	8	26	66
15	17	1	1	9	28	71
16	18	1	2	10	30	76
17	19	1	2	10	32	81
18	21	1	2	11	33	85
19	22	1	2	12	35	90
20	23	1	2	12	37	95
21	24	1	2	13	39	99
22	25	1	2	13	41	104
23	26	1	2	14	43	109
24	27	1	2	15	45	114

Variatio Anom. Med. ♂ & ♀ in part. Circuli. 10000

Sig. Anom.		*Gr. An.*	*Variat.*	
Add.	*Sub.*		♂	♀
0 .6	3 .9	0	0	0
		10	1	6
		20	2	11
1 .7	4 .10	0	3	15
		10	3	17
		20	3	17
2 .8	5 .11	0	3	15
		10	2	11
		20	1	6
3 .9	6 .0	0	0	0

Dist. a ☊ vel ☋	*Latitudo Heliocentrica,*					*R.*	*Max.*
	♄	♃	♂	♀	☿	☿	
S. gr.	*gr. d*	*gr. d*	*gr. d*	*gr. d*	*gr. d*	*d.*	*d.*
0. 0	0. 0	0. 0	0. 0	0. 0	0. 0	0	0
10	0. 4	0. 2	0. 3	0. 6	1. 2	1	0
20	0. 9	0. 5	0. 6	1. 2	2. 4	1	0
1. 0	1. 2	0. 7	0. 9	1. 7	3. 4	2	0
10	1. 6	0. 9	1. 2	2. 2	4. 4	2	1
20	1. 9	1. 0	1. 4	2. 6	5. 3	2	1
2. 0	2. 2	1. 2	1. 6	2. 9	6. 0	2	1
10	2. 3	1. 3	1. 8	3. 2	6. 5	1	2
20	2. 5	1. 3	1. 8	3. 3	6. 8	1	2
3. 0	2. 5	1. 2	1 9	3. 4	6. 9	0	2

Curtatio Max. est in Elong. Max. ☿ *à* ☉

Tabulæ Æquationis Temporis.

Subtrahe ab Apparente.

Locus ☉ Verus.

Sig.	♈ ♎	♉ ♏	♊ ♐	
gr.	mi.	mi.	mi.	gr.
0	0	8	9	30
10	3	10	7	20
20	6	10	4	10
30	8	9	0	0
	♋ ♑	♌ ♒	♍ ♓	Sig.

Adde ad Apparens.

Adde ad Apparens.

Anomalia Terræ Media.

Sig.	0	1	2	3	4	5	
gr.	mi.	mi.	mi.	mi.	mi.	mi.	gr.
0	0	4	7	8	7	4	30
10	1	5	7	8	6	3	20
20	3	6	8	8	5	1	10
30	4	7	8	7	4	0	0
	11	10	9	8	7	6	Sig.

Subtrahe ab Apparente.

Lunæ Tabula Mediorum Motuum.

An. Chri. Curren.	Mot. Med. ☽	Apogæi	☌ ret.
1	3402	7838	7408
1601	207	6356	7822
1661	1337	4176	5585
1681	5048	6782	4839
1701	8758	9389	4094
1721	2468	1995	3348
1741	6178	4602	2603
1761	9888	7208	1857
1781	3598	9815	1112
1801	7308	2421	366
1901	5858	5454	6638
2001	4409	8486	2910
Annis	M. Med. ☽	Apog.	☌ ret.
20	3710	2606	746
40	7420	5213	1491
60	1130	7819	2237
80	4840	426	2982
100	8550	3032	3728
200	7101	6065	7456
300	5651	9097	1184
400	4701	2130	4912
500	2752	5162	8639
600	1302	8194	2367
700	9852	1227	6095
800	8403	4259	9823
900	6953	7292	3551
1000	5503	324	7279
2000	1007	648	4558
3000	6510	972	1837
4000	2014	1296	9116
5000	7517	1620	6395
6000	3021	1944	3674

Annis	Mot. Med. ☽	Apogæi	☌ ret.
1	3594	1130	537
2	7188	2259	1074
3	782	3389	1611
4	4742	4521	2149
5	8336	5651	2686
6	1930	6780	3223
7	5524	7910	3760
8	9484	9043	4298
9	3078	172	4835
10	6672	1302	5372
11	266	2431	5909
12	4226	3564	6447
13	7820	4693	6984
14	1414	5823	7521
15	5008	6953	8058
16	8968	8085	8596
17	2592	9215	9133
18	6156	344	9670
19	9750	1474	207
20	3710	2606	746
Jan.	0	0	0
Feb.	1246	96	46
Mar.	1595	183	87
April	2941	279	132
Mii.	3921	371	177
Junii	5268	467	222
Julii	6248	560	266
Aug.	7594	656	312
Sept.	8941	752	357
Oct.	5921	845	402
Nov.	1267	941	447
Dec.	2248	1034	491

In Anno Bissextili post Februarium,
Adde unum diem & unius diei motum.

Lunæ Tabula Mediorum Motuum.

Dies.	Mot. Med. ☽	Apog.	☊. r.
1	366	3	1
2	732	6	3
3	1098	9	4
4	1464	12	6
5	1830	15	7
6	2196	19	9
7	2562	22	10
8	2928	25	12
9	3294	28	13
10	3660	31	15
11	4026	34	16
12	4392	37	18
13	4758	40	19
14	5124	43	21
15	5490	46	22
16	5856	50	24
17	6222	53	25
18	6588	56	26
19	6954	59	28
20	7320	62	29
21	7686	65	31
22	8052	68	32
23	8418	71	34
24	8784	74	35
25	9150	77	37
26	9516	80	38
27	9882	84	40
28	248	87	41
29	614	90	43
30	980	93	44
31	1346	96	46
32	1712	99	47

Hor.	Mot. Med. ☽	Apog.	☊. r.
1	15	0	0
2	31	0	0
3	46	0	0
4	61	1	0
5	76	1	0
6	92	1	0
7	107	1	0
8	122	1	0
9	137	1	1
10	153	1	1
11	168	1	1
12	183	2	1
13	198	2	1
14	214	2	1
15	229	2	1
16	244	2	1
17	259	2	1
18	275	2	1
19	290	2	1
20	305	3	1
21	320	3	1
22	336	3	1
23	351	3	1
24	366	3	1

☾	Mot. med. ☽		
mi. 4	m. 1	mi. 5	m. 8
8	2	31	9
12	3	35	10
16	4	40	11
20	5	44	12
24	6	52	13
28	7	55	14
31	8	59	15

Tabula Æquat. ☊ ☽.			
Sig. Dist. ☽ à ☉			Æq. ☊
Sub.	Add.	gr.	gr. d.
0 . 6	3 . 9	0	0 . 0
		10	0 . 6
		20	1 . 1
1 . 7	4 . 10	0	1 . 5
		10	1 . 7
		20	1 . 7
2 . 8	5 . 11	0	1 . 5
		10	1 . 1
		20	0 . 6
3 . 9	6 . 0	0	0 . 0

Tabula Excessus ☽ Latitudinis maximæ amplius 5 grad. atque Latitudinis simplicis, & Reductionis mediæ.

Dist ☽ à ☉ pro Exces. Arg. Lat. ☽ pro Lat. &c.				Exc.	Lat.	Red.
Sig.	gr.	Sig.	gr.	mi.	gr. mi.	mi.
B. A	Sub.	B. A.	Add.			
0. 6	0	6. 0	0	0	0. 0	0
0. 6	10	5. 11	20	1	0. 52	2
0. 6	20	5. 11	10	2	1. 42	4
1. 7	0	5. 11	0	4	2. 30	6
1. 7	10	4. 10	20	7	3. 13	7
1. 7	20	4. 10	10	11	3. 50	7
2. 8	0	4. 10	0	13	4. 20	6
2. 8	10	3. 9	20	16	4. 42	4
2. 8	20	3. 9	10	17	4. 55	2
3. 9	0	3. 9	0	18	5. 0	0

Tabula Motus Medii Lunæ à Sole.

An. Chri. Curren.	Mot. Med. ☽ à ☉	Annis	Mot. Med. ☽ à ☉	Dies.	Mot. Med ☽ à ☉	Hor.	Mot. m ☽ à ☉
1	5681	1	3601	1	339	1	14
1601	2153	2	7201	2	677	2	28
1661	3271	3	802	3	1016	3	42
1681	6977	4	4741	4	1355	4	56
1701	682	5	8342	5	1693	5	71
1721	4388	6	1942	6	2032	6	85
1741	8094	7	5543	7	2370	7	99
1761	1800	8	9482	8	2709	8	113
1781	5506	9	3083	9	3048	9	127
1801	9212	10	6684	10	3386	10	141
1901	7741	11	284	11	3725	11	155
2001	6271	12	4224	12	4064	12	169
Annis	M. ☽ à ☉	13	7824	13	4402	13	183
20	3706	14	1425	14	4741	14	198
40	7412	15	5025	15	5079	15	212
60	1118	16	8965	16	5418	16	226
80	4824	17	2565	17	5757	17	240
100	8529	18	6166	18	6095	18	254
200	7059	19	9767	19	6434	19	268
300	5588	20	3706	20	6773	20	282
400	4118	Jan.	0	21	7111	21	296
500	2647	Feb.	498	22	7450	22	310
600	1177	Mar.	9979	23	7789	23	325
700	9706	April	477	24	8127	24	339
800	8236	Maii.	636	25	8466		
900	6765	Junii	1113	26	8804		
1000	5295	Julii	1292	27	9143		
2000	590	Aug.	1790	28	9482		
3000	5884	Sept.	2288	29	9820		
4000	3179	Oct.	2447	30	159		
5000	6474	Nov.	2944	31	498		
6000	1769	Dec.	3103	32	836		

In Anno Bissextili post Februarium,
Adde unum Diem & unius diei motum.